Interleukin-10 (IL-10) conjugated via a linker to one or more polyethylene glycol

(PEG) molecules at a single amino acid residue of the IL-10, and a method for preparing the same, are provided. The method produces a stable mono-pegylated IL-10, which retains IL-10 activity, where pegylation is selective for the N-terminus on one subunit of IL-10 with little or no formation of monomeric IL-10. The method also provides a substantially homogenous population of mono-PEG-IL-10.